

## **BURN - Burns**

### **BURN-C      COMPLICATIONS**

**OUTCOME:** The patient/family will understand the complications associated with burns.

**STANDARDS:**

1. Explain that burned tissue is very susceptible to infections.
2. Review the symptoms of a generalized infection, e.g., high fever, swelling or oozing, spreading redness, red streaking, increased tenderness/pain, changes in mental status, decreased urine output.
3. Review the effects of uncontrolled burn or wound infections (e.g., cellulitis) or generalized infection, e.g., loss of limb, need for fasciotomy and skin grafting, multi-organ failure, death.
4. Explain that scarring and/or tissue discoloration is common after healing of a burn.
5. Emphasize the importance of early treatment to prevent complications.
6. Explain that third degree or large body surface area burns are particularly prone to infection dehydration and other metabolic derangement that can be lethal.

### **BURN-CUL      CULTURAL/SPIRITUAL ASPECTS OF HEALTH**

**OUTCOME:** The patient/family will understand the impact and influences cultural and spiritual traditions, practices, and beliefs have on health and wellness.

**STANDARDS:**

1. Explain that the outcome of disease processes may be influenced by choices related to health and lifestyles, e.g., diet, exercise, sleep, stress management, hygiene, full participation in the medical plan. (Stoic Fatalism)
2. Discuss the potential role of cultural/spiritual traditions, practices and beliefs in achieving and maintaining health and wellness.
3. Explain that traditional medicines/treatments should be reviewed with the healthcare provider to determine if there are interactions with prescribed treatment.
4. Explain that the medical treatment plan must be followed as prescribed to be effective and that some medications/treatments take time to demonstrate effectiveness.

5. Discuss that traditions, such as sweat lodges, may affect some conditions in detrimental ways. Healing customs or using a traditional healer may have a positive effect on the patient's condition.
6. Refer to clergy services, traditional healers, or other culturally appropriate resources.

**BURN-DP     DISEASE PROCESS**

**OUTCOME:** The patient/family will understand the pathophysiology and staging of burns.

**STANDARDS:**

1. Explain that burns may be the result of various causes such as fire and heat or steam; chemical or electrical burns and sunburns.
2. Explain the first step is to determine the degree and the extent of damage to body tissues:
  - a. First-degree burns are those in which only the outer layer of skin (epidermis) is burned. The skin is usually red, with swelling and pain sometimes present. The outer layer of skin hasn't been burned through. Treat a first degree burn as a minor burn unless it involves substantial portions of the hands, feet, face, or other large areas of the body.
  - b. Second-degree burns are when the first layer of skin has been burned through and the second layer of skin (dermis) also is burned. Blisters develop and the skin takes on an intensely reddened, splotchy appearance. Second-degree burns produce severe pain and swelling.
  - c. Third-degree burns are the most serious and are painless and involve all layers of the skin. Fat, muscle, and even bone may be affected. Areas may be charred black or appear dry and white. Difficulty in inhaling and exhaling, carbon monoxide poisoning, or other toxic effects may occur if smoke inhalation accompanies the burn.
3. Chemical burns are injuries to the body as a result of chemicals (e.g., cleaning materials, gasoline).
4. Explain that electrical burns are caused by the skin or body coming in contact with electricity and while an electrical burn may appear minor, the damage can extend deep into the tissues beneath the skin. If a strong electrical current passes through the body, internal damage such as heart rhythm disturbance or cardiac arrest can occur. Explain that electrical burns should be evaluated by a healthcare provider.
5. Explain that sunburn is the result of overexposure to the sun's ultraviolet (UV) radiation. Repeated exposure to UV radiation both tans and damages your skin. The signs and symptoms of sunburn usually appear within a few hours of exposure, bringing pain, redness, swelling and occasional blistering. Because sun

burn often affects a large area of your skin, sunburn can cause headache, fever, fatigue, and dehydration. **Refer to SUN.**

**BURN-L LITERATURE**

**OUTCOME:** The patient/family will receive literature appropriate to the type and degree of the burn.

**STANDARDS:**

1. Provide written literature on first-, second-, third-degree burns, chemical or electrical burns or sunburn.
2. Discuss the content of the literature.

**BURN-M MEDICATIONS**

**OUTCOME:** The patient/family will understand the importance of full participation with the prescribed medication plan.

**STANDARDS:**

1. Discuss the role of medication in the patient's treatment plan.
2. Review directions for use and duration of therapy.
3. Discuss expected benefits of therapy as well as the important and common side effects. Discuss side effects and symptoms that should prompt a return visit.
4. Discuss importance of full participation with the medication plan.
5. Emphasize the importance of follow-up.

**BURN-MNT MEDICAL NUTRITION THERAPY**

**OUTCOME:** The patient and family will have an understanding of the specific nutritional intervention(s) needed for treatment or management of this condition, illness, or injury.

**STANDARDS:**

1. Explain that Medical Nutrition Therapy (MNT) is a systematic nutrition care process provided by a Registered Dietitian (RD) that consists of the following:
  - a. Assessment of the nutrition related condition.
  - b. Identification of the patient's nutritional problem.
  - c. Identification of a specific nutrition intervention therapy plan.
  - d. Evaluation of the patient's nutritional care outcomes.
  - e. Reassessment as needed.
2. Review the basic nutrition recommendations for the treatment plan.

3. Discuss the benefits of nutrition and exercise to health and well-being.
4. Assist the patient/family in developing an appropriate nutrition care plan.

**BURN-N      NUTRITION**

**OUTCOME:** The patient/family will understand the role of adequate nutrition for the healing of burns.

**STANDARDS:**

1. Explain the importance of adequate nutrition and hydration in the repair of tissue.
2. Refer to a registered dietician as appropriate.

**BURN-P      PREVENTION**

**OUTCOME:** The patient/family will understand the factors associated with an increased risk of burns and how to lower the risk of burns.

**STANDARDS:**

1. Explain that all homes should have ABC fire extinguishers in several locations throughout the home.
2. Explain the importance of having fire escape ladders in multi-story homes.
3. Discuss safety issues:
  - a. To prevent fire burns:
    - i. Install smoke detectors
    - ii. Don't smoke in bed
    - iii. Practice home fire drills and "stop, drop, and roll"
    - iv. Don't let children play with matches, lighters, flames, or fireworks
    - v. Explain that fireworks are extremely dangerous
    - vi. Ensure heat lamps and other sources of heat have timers or appropriate safety devices
    - vii. Never leave burning candles unattended
    - viii. Assure that electrical wiring, outlets, and electrical devices are safe
  - b. To prevent chemical burns:
    - i. Child-proof cabinets and store chemicals out of the reach of children
    - ii. Use caution in storing cleaning materials
    - iii. Wear gloves and other protective clothing when using chemicals
  - c. To prevent heat/steam burns:
    - i. Set your water heater no higher than 120°F.

- ii. Test the water temperature before entering or putting children into bathtubs/showers.
- iii. Use cool water humidifiers not steam vaporizers.
- iv. Before putting a child into a car seat, touch the seat to check how hot it is. It is a good idea to keep a towel covering the car seat in summer months.
- v. When cooking, turn the handles of pots toward the side or rear of the stove, don't wear loose clothing that can come in contact with the stove. You should always use the back burners first.
- vi. Use extreme caution when lifting lids from pots because steam may suddenly be released.
- vii. Use caution when removing items in a microwave as they may be very hot. Use only microwave approved dishware.
- d. To prevent electrical burns:
  - i. Put covers on any electrical outlets not currently in use.
  - ii. Don't use items with frayed or damaged electrical cords.
  - iii. Don't overload outlets.
  - iv. Keep electrical devices away from water and use ground fault circuit interrupter outlets near water sources.
  - v. Don't modify electrical cords or plugs.
  - vi. Use power surge protectors.
- 6. Review the dangers inherent in the use of wood-burning stoves, "charcoal pans," kerosene heaters, and other open flames.
- 7. Encourage the use and proper maintenance of smoke detectors, carbon monoxide detectors, and fire suppression systems.
- 8. Encourage routine practices of fire escape plans, chimney cleaning, and fireworks safety.
- 9. Review the safe use of electricity and natural gas.
- 10. Avoid the use of kerosene or gasoline when burning debris piles.

## **BURN-TX TREATMENT**

**OUTCOME:** The patient/family will understand the risks and benefits of treatment as well as the possible consequences of not participating with the treatment plan.

### **STANDARDS:**

1. Explain that treatment of burns varies according to the degree, size, and location of the burn. Discuss this individual's specific burn treatment plan.
2. Explain and urge caution:

- a. Don't use butter on a burn because butter may contain salt which can worsen the burn.
- b. Don't use ice, because putting ice on a burn can cause frostbite, further damaging your skin.
- c. Don't break blisters as fluid-filled blisters protect against infection. If blisters break, wash the area with mild soap and water, then apply an antibiotic ointment and a gauze bandage. Clean and change dressings as directed by a healthcare provider. Antibiotic ointments don't make the burn heal faster but they can help prevent infection.
- d. Don't remove any burnt clothing that is "stuck" to the skin as a result of the burn. The victim should be taken immediately to an emergency room. Until arriving at the emergency room, cover the area of the burn with a cool, moist sterile bandage/gauze or clean cloth.

3. **Refer to PM.**

### **BURN -WC WOUND CARE**

**OUTCOME:** The patient/family will understand the necessity and procedure for proper wound care and infection control measures.

**STANDARDS:**

1. Explain the reasons to care appropriately for the burn, e.g., decreased infection rate, improved healing.
2. Explain the correct procedure for caring for this patient's burn.
3. Explain signs or symptoms that would prompt immediate follow-up, e.g., increasing redness, purulent discharge, fever, increasing pain, or swelling.
4. Detail the supplies necessary for care of this burn (if any) and how/where they might be obtained and proper methods for disposal of used supplies.
5. As appropriate, have the patient/family demonstrate burn care techniques.
6. Emphasize the importance of follow-up.